

Work Order ID 145160

Tuesday, May 03, 2016 2:02:59 PM

145160

Page 1

Item ID: D5397-1

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: D Ring

Start Date: 5/6/2016 Start Qty: 24.00

24

Cust Item ID:

Required Date: 5/18/2016 Req'd Qty: 24.00

24

Customer:

Reference:

Approvals: Process Plan: MLS Date: MAY 03 2016 Tooling: _____ Date: _____Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D5397	A

100

0.00

100

PURCHASING

Purchasing

Memo

0.00

Purchasing

Issue P/O: 32250

Possible Supplier: McMaster Carr

Description: D-RING

Supplier P/N: 3076T13

C OF C is required

MAY 04 2016

DAS
13
9:58

110

Receive & Inspect for Damage & Mat'l Certs

0.00

110

Packaging

Memo

0.00

Packaging

24 5016-005-d6

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause				FAULT CATEGORY					
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER :							

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Page 2

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Run Start ***NR1***

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Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC6- Inspect dimensions to drawing	0.00							DAS 38 9-89
120						(24)			
QC	Memo	0.00							
Quality Control									MAY 09 2016
130	Identify as per dwg & Stock Location: <i>St 168</i>	0.00							
130						24			
Packaging	Memo	0.00							DAS 6 9-89
Packaging									MAY 08 2016
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									MAY 10 2016

MAY 10 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong				
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions				
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance				
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect				
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing				
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved				
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing				
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish				
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread				
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence				
Past Expiry Date ☐	☐ Manufacturing Process								
Misidentified ☐	☐ Past Due	OTHER : _____							

Tuesday, May 03, 2016 2:03:03 PM

Page 1

145160

D5397-1

Required Qty: 24.00

[illegible]

24

3076T13

24x sp 16-05-06

DQA: _____ Date: _____



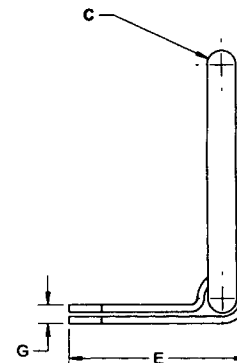
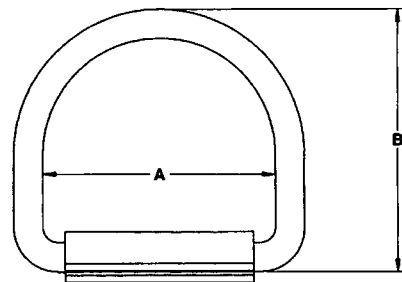
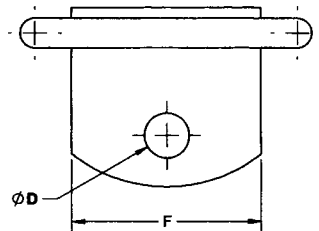
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Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : ☐					

SPECIFICATION CONTROL DRAWING



SHOP
RETURN
ENGINEER
UNCONTROLLED
SUBJECT TO
WITHOUT
WORK
NO 145160 MLC
16-05-03

D5397-X D RING

PART NUMBER	VENDOR	VENDOR P/N	A	B	C	D	E	F	G	MATERIAL	WEIGHT
D5397-1	MCMaster	3076T13	2"	2.25"	0.25"	0.38"	1.53"	1.63"	0.16"	ZINC PLATED STEEL	0.2 LBS

RELEASED
2016-03-23
Een 11-548

- NOTES:**
 1) MATERIAL: SEE TABLE
 2) FINISH: SEE TABLE
 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.7
 7) WEIGHT: SEE TABLE

APPROVED

A		NEW ISSUE		DB	16.02.09
REV.		DESCRIPTION		BY	DATE
DESIGN	DB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWN	VS				
CHECKED	ML	DRAWING NO.	REV. A		
MFG. APPR.	DD	D5397	SHEET 1 OF 1		
APPROVED	WM	TITLE	SCALE		
DE APPR.	DS	D RING	NTS		
DATE	16.02.09				
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Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO32250**

Purchase Order Date 5/4/2016

PO Print Date 5/4/2016

Page Number 2 of 4

Order From :
MCMASTER-CARR SUPPLY CO,
P.O. BOX 7690
CHICAGO, IL 60680-7690
US

VU-MCM001

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name
Vendor Phone 330 995 5500

Ship To Contact
Ship To Phone
Ship Via: Purolator ground ppd
Ship Acct:

Buyer Chantal Lavoie
Customer POID
Customer Tax # 10127-2607
Terms Net 10
Currency USD
FOB FCA - (Free Carrier)

				Line Total:	\$69.82
Deliver To: LUC					
4	71400-11	54845T85 6" TONGUE DEPRESSOR	5/6/2016	4.00 ✓	\$12.01
			Yes	Each	\$48.04
			5/6/2016		

				Line Total:	\$48.04
Deliver To: ANDY					
5	71500-10	9381T24 S-HOOKS	5/6/2016	20.00 ✓	\$4.06
			Yes	Each	\$81.20
			5/6/2016		
20 PK OF 25 PCS					

				Line Total:	\$81.20
Deliver To: FINISHING					
6	3076T13	D Ring	5/6/2016 FN	24.00 ✓	\$1.05
			Yes	Each	\$25.20
			5/6/2016		

AS PER DWG D5397 REV. A
B145160

SP/6-05-ole.

Note:

5/4/2016



200 Aurora Industrial Pkwy
Aurora OH 44202-8087
330-995-5500
cle.sales@mcmaster.com

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury ON K6A 1K7
Canada
Attention: Chantal

Purchase Order
PO32250
Order Placed By
Chantal Lavoie

McMaster-Carr Number
2865525-01

Page 1 of 1

05/04/2016

Line	Product	Ordered	Shipped
1	26955A71 General Purpose Tap, for Closed-End Hole Threading, LG-Life, 4-40 Thread Size	6 Each	6 ✓
4	54845T85 6" X 3/4" Tongue Depressors, Packs of 500	4 Packs	4 ✓
5	9381T24 Open-End S-Hook-Not for Lifting, Zinc-Plated Steel, 20 lbs. Cap., Packs of 25	20 Packs	20 ✓
6	3076T13 Tie-Down Ring, Zinc-Plated Steel Ring & Clamp, 500# Work Load Limit, 2" ID	24 Each	24 ✓
7	3132T2 Rope with Hook - Not for Lifting, Polyester Cover, 5/32" Diameter	25 Feet	25 ✓
8	9372T21 Welded Nickel-Plated Steel D-Ring, for 1" Webbing Width, Packs of 10, Shipping 4 Packs To Meet Your Needs of 32 Each	4 Packs	4 ✓
9	5848K13 Neodymium Magnet, 3/8" Long, 3/8" Wide, 0.1" Thick, 3 lbs Max Pull	6 Each	6 ✓

Expected to ship

2	94675A999 Air Power-Driven Rivet Nut Installation Tool, Rotor Blade Kit, Includes 5 Vanes, P/N Ssg-802-9	2 Kits	2 to ship by 05/18
3	8077K235 Compact Brass Solenoid Valve, 1/4 NPT with DIN Connector, 110 PSI, 120V AC	1 Each	1 to ship by 05/18

Notes about your shipment

The U.S. Department of Transportation regulates the shipping of line 9. By purchasing from McMaster-Carr Supply Company, you agree not to transport or permit others to transport purchased items except in accordance with U.S. law and any other applicable laws.